	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	517	331/dig.2.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/03/05 08:44			
2	BRS	L2	225	1 and (lock adj detect$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/03/05 08:44			
3	BRS	L3	261	1 and (lock adj (detect$3 or indicat$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/03/05 09:05			
4	BRS	L4	38	3 and (un$lock or unlock)	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/03/05 09:05			

	Type	Hits	Search Text
1	BRS	614	375/373.ccls.
2	BRS	2335	375/376.ccls.
3	BRS	356	375/375.ccls.
4	BRS	1860	375/371.ccls.
5	BRS	411	375/369.ccls.
6	BRS	81	375/370.ccls.
7	BRS	589	375/327.ccls.
8	BRS	329	375/328.ccls.
9	BRS	1	"05963608"
10	BRS	5750	S1 S2 S3 S4 S5 S6 S7 S8
11	BRS	1	"5448598".PN.
12	BRS	1	"5367545".PN.
13	BRS	23	S3 and (frequency adj increas$3) and (frequency adj de$creas$3 or decreas$3)
14	BRS	153	S10 and (frequency adj increas$3) and (frequency adj de$creas$3 or decreas$3)
15	BRS	7	S14 and (un$lock or unlock same alarm)
16	BRS	8	S14 and (un$lock or unlock or lock same alarm)

	DBs	Time Stamp	Comments	Error Definition	Errors	Ref #
1	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/03/05 08:43				S1
2	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 08:25				S2
3	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 10:23				S3
4	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 08:26				S4
5	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 08:26				S5
6	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 08:26				S6
7	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 08:27				S7
8	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 08:27				S8
9	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 08:36				S9
10	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 08:36				S10
11	USPAT; USOCR	2005/09/20 09:30				S11
12	USPAT; USOCR	2005/09/20 09:34				S12
13	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 11:34				S13
14	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 13:05				S14
15	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 11:12				S15
16	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 11:38				S16

	Type	Hits	Search Text
17	BRS	8	S14 and (un$lock or unlock or lock near4 alarm)
18	BRS	1	"04499434"
19	BRS	153	S14 and ("375"/$.ccls. or "331"/$.ccls. or "326"/$.ccls. or "327"/$.ccls.)
20	BRS	8	S16 and ("375"/$.ccls. or "331"/$.ccls. or "326"/$.ccls. or "327"/$.ccls.)
21	BRS	120	S14 and (un$lock or unlock or lock same alarm or indicat$3)
22	BRS	148	S14 and (lock$3 detector)
23	BRS	14	S14 and (lock$3 adj detector)
24	BRS	16	S14 and (lock$3 adj detect$4)
25	BRS	977	(synchroniz$6 adj loss) or (los$4 adj synchroniz$6) and alarm
26	BRS	614	375/373.ccls.
27	BRS	2335	375/376.ccls.
28	BRS	356	375/375.ccls.
29	BRS	1860	375/371.ccls.
30	BRS	411	375/369.ccls.
31	BRS	81	375/370.ccls.
32	BRS	589	375/327.ccls.

	DBs	Time Stamp	Comments	Error Definition	Errors	Ref #
17	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 11:21				S17
18	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 11:34				S18
19	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 11:37				S20
20	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 11:37				S19
21	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 11:39				S21
22	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 13:05				S22
23	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 13:06				S23
24	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/20 13:06				S24
25	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/21 10:55				S25
26	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/21 10:27				S26
27	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/03/03 07:55				S27
28	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/21 10:27				S28
29	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/21 10:27				S29
30	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/21 10:27				S30
31	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/21 10:27				S31
32	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/21 10:27				S32

	Type	Hits	Search Text
33	BRS	329	375/328.ccls.
34	BRS	5750	S26 S27 S28 S29 S30 S31 S32 S33
35	BRS	25	S25 and S34
36	BRS	1714	(synchroniz$6 adj (loss or lock or un$lock or unlock)) or ((loss or lock or un$lock or unlock) adj synchroniz$6) and alarm
37	BRS	69	S34 and S36
38	BRS	858	(synchroniz$6 adj (loss or un$lock or unlock)) or ((loss or un$lock or unlock) adj synchroniz$6) and alarm
39	BRS	21	S34 and S38
40	BRS	641	375/373.ccls.
41	BRS	2436	375/376.ccls.
42	BRS	379	375/375.ccls.
43	BRS	1921	375/371.ccls.
44	BRS	412	375/369.ccls.
45	BRS	82	375/370.ccls.
46	BRS	602	375/327.ccls.
47	BRS	332	375/328.ccls.
48	BRS	5921	S40 S41 S42 S43 S44 S45 S46 S47

	DBs	Time Stamp	Comments	Error Definition	Errors	Ref #
33	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/03/03 06:57				S33
34	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/21 10:27				S34
35	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/21 10:28				S35
36	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/21 11:01				S36
37	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/21 10:59				S37
38	US-PGPUB; USPAT; EPO; JPO; DERWENT	2005/09/21 11:02				S38
39	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/02/28 10:27				S39
40	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/02/28 10:27				S40
41	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/02/28 10:27				S41
42	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/02/28 10:27				S42
43	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/02/28 10:27				S43
44	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/02/28 10:27				S44
45	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/02/28 10:27				S45
46	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/02/28 10:27				S46
47	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/02/28 10:27				S47
48	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/02/28 10:27				S48

	Type	Hits	Search Text
49	BRS	905	(synchroniz$6 adj (loss or un$lock or unlock)) or ((loss or un$lock or unlock) adj synchroniz$6) and alarm
50	BRS	22	S48 and S49
51	BRS	206	375/374.ccls.
52	BRS	35	375/373.ccls. and (lock adj detect$4)
53	BRS	2	375/376.ccls. and (accuracy adj1 efficiency)
54	BRS	2	375/376.ccls. and (accuracy near1 efficiency)

	DBs	Time Stamp	Comments	Error Definition	Errors	Ref #
49	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/02/28 10:27				S49
50	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/02/28 10:28				S50
51	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/03/03 06:57				S51
52	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/03/03 07:53				S52
53	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/03/03 07:56				S53
54	US-PGPUB; USPAT; EPO; JPO; DERWENT	2006/03/03 07:57				S54

	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
1	US 6990165 B2	20060124	14	Phase and frequency lock detector	375/376	327/156; 331/DIG. 2
2	US 6765444 B2	20040720	12	Cross clocked lock detector circuit for phase locked loop	331/17	331/25; 331/DIG. 2
3	US 6762631 B1	20040713	12	Lock detection circuit for a phase locked loop circuit	327/142	331/DIG. 2
4	US 6614317 B2	20030902	9	Variable lock window for a phase locked loop	331/17	327/156; 331/1A; 331/DIG. 2; 375/376
5	US 6469584 B1	20021022	10	Phase-locked loop system and method using an auto-ranging, frequency sweep window voltage controlled oscillator	331/11	331/1A; 331/1R; 331/34; 331/4; 331/DIG. 2
6	US 6005904 A	19991221	7	Phase-locked loop with protected output during instances when the phase-locked loop is unlocked	375/376	327/159; 331/DIG. 2
7	US 5969576 A	19991019	12	Phase locked loop lock condition detector	331/1A	331/25; 331/DIG. 2
8	US 5903195 A	19990511	12	Automatically ranging phase locked loop circuit for microprocessor clock generation	331/4	327/156; 331/17; 331/179; 331/57; 331/8; 331/DIG. 2
9	US 5764714 A	19980609	10	Latching inputs and enabling outputs on bidirectional pins with a phase locked loop (PLL) lock detect circuit	375/377	326/136; 331/DIG. 2; 375/376; 710/12

	Inventor
1	Boerstler; David William et al.
2	Wang; David Y. et al.
3	Kumar; Ravi
4	Wong; Keng L. et al.
5	Eker; Mehmet M. et al.
6	Knapp; David J. et al.
7	Trodden; Thomas J.
8	Lukes; Eric John et al.
9	Stansell; Galen E. et al.

	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
10	US 5764712 A	19980609	5	Phase locked loop circuit having automatic range setting logic	375/376	327/159; 327/160; 327/163; 331/1A; 331/DIG. 2
11	US 5710525 A	19980120	10	Radio-frequency module with phase lock loop and frequency setting	331/16	331/17; 331/DIG. 2; 332/100; 375/303; 375/376
12	US 5680076 A	19971021	8	Phase-lock indicator circuit with phase-only detection	331/25	331/DIG. 2
13	US 5675284 A	19971007	9	Frequency lock indicator for FPLL demodulated signal having a pilot	329/360	329/357; 331/11; 331/DIG. 2; 375/344; 375/362; 375/376; 455/204
14	US 5656977 A	19970812	7	Frequency-lock indicator circuit with frequency-only detection	331/25	331/DIG. 2
15	US 5546052 A	19960813	22	Phase locked loop circuit with phase/frequency detector which eliminates dead zones	331/1A	331/11; 331/17; 331/25; 331/27; 331/57; 331/DIG. 2
16	US 5539357 A	19960723	19	Phase locked loop	331/17	327/159; 331/1A; 331/12; 331/15; 331/20; 331/25; 331/DIG. 2; 348/536

	Inventor
10	Branstad; Mark William et al.
11	Tanaka; Masahiro et al.
12	Kelkar; Ram et al.
13	Sgrignoli; Gary J.
14	Kelkar; Ram et al.
15	Austin; John S. et al.
16	Rumreich; Mark F.

	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
17	US 5525932 A	19960611	21	Lock indicator for phase locked loop circuit	331/1A	331/11; 331/17; 331/25; 331/DIG. 2
18	US 5495207 A	19960227	20	Differential current controlled oscillator with variable load	331/57	331/177R; 331/34; 331/DIG. 2
19	US 5491439 A	19960213	21	Method and apparatus for reducing jitter in a phase locked loop circuit	327/157	327/156; 331/14; 331/17; 331/25; 331/DIG. 2; 375/376
20	US 5483558 A	19960109	10	Method and apparatus for detecting phase or frequency lock	375/376	331/1A; 331/DIG. 2; 375/373
21	US 5410571 A	19950425	24	PLL frequency synthesizer circuit	375/376	331/1R; 331/DIG. 2; 455/260
22	US 5304954 A	19940419	15	PLL synthesizer having frequency dividers with reset control	331/1A	331/14; 331/16; 331/25; 331/DIG. 2
23	US 5304952 A	19940419	14	Lock sensor circuit and method for phase lock loop circuits	331/1A	331/27; 331/DIG. 2
24	US 5189379 A	19930223	19	Pulse width detecting circuit and PLL synthesizer circuit using the same	331/1A	327/31; 327/42; 327/7; 331/DIG. 2

	Inventor
17	Kelkar; Ram et al.
18	Novof; Ilya I.
19	Kelkar; Ram et al.
20	Leon; Ana S. et al.
21	Yonekawa; Masayuki et al.
22	Saito; Shinji et al.
23	Quiet; Duane G. et al.
24	Saito; Shinji et al.

	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
25	US 5159292 A	19921027	8	Adaptive phase locked loop	331/1A	331/14; 331/17; 331/20; 331/DIG. 2; 348/735
26	US 5028885 A	19910702	5	Phase-locked loop signal generation system with control maintenance	331/1A	331/14; 331/17; 331/25; 331/DIG. 2; 375/376; 455/119; 455/260; 455/76
27	US 5015971 A	19910514	11	Frequency agile microwave signal generator	331/16	331/19; 331/4; 331/DIG. 2
28	US 4929916 A	19900529	7	Circuit for detecting a lock of a phase locked loop	331/1A	331/17; 331/DIG. 2
29	US 4849835 A	19890718	6	Disk servo with PLL for detecting timing deviations	360/60	331/25; 331/DIG. 2; 360/51
30	US 4617527 A	19861014	9	PU lock acquisition with scan restart upon false lock	331/4	331/14; 331/17; 331/DIG. 2; 369/47.21 ; 369/47.28
31	US 4617520 A	19861014	14	Digital lock detector for a phase-locked loop	327/12	327/159; 331/25; 331/DIG. 2; 377/51

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25	Canfield; Barth A. et al.
26	Voigt; John et al.
27	Taylor; Stephen D. et al.
28	Fukuda; Shinri
29	Entezarmahdi; Seyed et al.
30	Naitoh; Ryuichi
31	Levine; Stephen N.

	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
32	US 4614917 A	19860930	8	Millimeter wave frequency synthesizer with automatic loop gain correction and sophisticated lock search systems	331/1A	331/17; 331/4; 331/DIG. 2
33	US 4527127 A	19850702	6	Frequency acquisition circuit for phase locked loop .	329/308	331/1A; 331/DIG. 2
34	US 4201945 A	19800506	13	Phase comparing apparatus	455/183.1	327/3; 331/25; 331/DIG. 2; 455/260
35	US 3958186 A	19760518	10	Wideband phase locked loop transmitter system	331/4	327/132; 327/156; 331/17; 331/25; 331/8; 331/DIG. 2; 455/113; 455/116; 455/119
36	US 3956710 A	19760511	7	Phase locked loop lock detector and method	331/1A	327/241; 327/3; 327/43; 331/11; 331/17; 331/25; 331/DIG. 2
37	US 3922602 A	19751125	5	Lock detector for a phase locked loop	324/76.78	327/254; 327/3; 331/64; 331/DIG. 2
38	JP 62274929 A	19871128	6	PLL CIRCUIT		331/DIG. 2

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32	Zelitzki; Michael et al.
33	Brown; Kenneth H.
34	Ohgishi; Tsutomu et al.
35	Jesse; James Edward et al.
36	Seitz; Martin V. et al.
37	Lunquist; Richard Eli
38	UJINO, YOSHIAKI et al.